

**CLAIM AMENDMENTS**

Please amend the present application as follows:

1. (Currently Amended) A method of diagnosing an aggressive form of cancer, the method comprising the steps of:

providing a test genetic sample from a ~~first test sample~~ tumor ~~having less than about 3.5% invasive ability~~;

measuring *Wnt5a* expression in the ~~first test~~ genetic sample;

~~providing a genetic sample from a test sample of a second tumor; and~~

~~measuring *Wnt5a* expression in the second genetic sample;~~

analyzing expression of *Wnt5a* by statistical methods, wherein the statistical methods comprise comparing increased expression of *Wnt5a* in the test genetic sample to the gene expression profile of *Wnt5a* from a cluster of pair-matched tumor samples,

wherein increased expression of *Wnt5a* in the test sample ~~of the second tumor~~ compared to *Wnt5a* expression in the ~~first tumor~~ cluster of pair-matched tumor samples having less than about 3.5% invasive ability indicates the second tumor is aggressive.

- 2.-3. (Cancelled)

4. (Currently Amended) A method of diagnosing an aggressive form of malignant melanoma, the method comprising the steps of:

measuring *Wnt5a* expression in a ~~first test~~ tumor ~~having non-detectable or no vasculogenic mimicry~~;

~~providing a genetic sample from a test sample of a second tumor;~~

~~determining~~ analyzing expression of *Wnt5a* in the ~~second test~~ tumor by statistical methods, wherein the statistical methods comprise comparing increased expression of *Wnt5a* in the test tumor to the gene expression profile of *Wnt5a* from a cluster of pair-matched tumor samples,

wherein increased expression of *Wnt5a* in the test ~~tumor sample of the second tumor~~ compared to *Wnt5a* expression in the ~~first tumor~~ cluster of pair-matched tumor samples having non-detectable or no vasculogenic mimicry indicates the ~~second test~~ tumor is aggressive; and

selecting a first treatment regimen for an individual with the ~~second test~~ tumor if the ~~second test~~ tumor is aggressive and a second treatment regimen if the ~~second test~~ tumor is non-aggressive, wherein the first and second treatment regimens are not the same.

5-24. (Cancelled)

25. (Previously Presented) The method of claim 1, wherein the cancer is malignant melanoma.

26. (Currently Amended) A method of diagnosing an aggressive form of cancer, the method comprising the steps of:

measuring *Wnt5a* expression in a ~~first test sample~~ tumor ~~having a cell motility of less than about 110.7  $\mu$ m per day;~~

~~providing a genetic sample from a test sample of a second tumor; and~~

~~measuring *Wnt5a* expression in the second tumor;~~

analyzing expression of *Wnt5a* in the ~~second test sample~~ tumor by statistical methods, wherein the statistical methods comprise comparing increased expression of *Wnt5a* in the test sample tumor to the gene expression profile of *Wnt5a* from a cluster of pair-matched tumor samples, wherein increased expression of *Wnt5a* in the test sample of the second tumor compared to *Wnt5a* expression in the first tumor cluster of pair-matched tumor sample having a cell motility of less than about 110.7  $\mu$ m per day indicates the second test tumor is aggressive.

27. (Previously Presented) The method of claim 26, wherein the cancer is malignant melanoma.

28. (Previously Presented) A method of diagnosing an aggressive form of cancer, the method comprising the steps of:

providing a genetic sample from a test sample of a tumor;

analyzing expression of *Wnt5a* in the test sample of the tumor compared to a *Wnt5a* gene expression profile from a cluster of pair-matched tumor samples, wherein increased expression of *Wnt5a* in the test sample compared to a tumor in the gene

expression profile having a particular phenotype indicates that the tumor of the test sample is aggressive.

29. (Previously Presented) The method of claim 28, wherein the cancer is malignant melanoma.

30. (Previously Presented) The method of claim 28, wherein the phenotype is chosen from at least one of: reduced cell motility, reduced invasive ability, and non-detectable or no vasculogenic mimicry.

31. (Previously Presented) The method of claim 28, wherein analyzing comprises comparing expression of *Wnt5a* in the test sample of the tumor to a *Wnt5a* gene expression profile from a cluster of pair-matched tumor samples, wherein increased *Wnt5a* expression in the test sample relative to a tumor in the gene expression profile having less than about 3.5% invasive ability indicates the tumor of the test sample is aggressive.

32. (Previously Presented) The method of claim 28, wherein analyzing comprises comparing expression of *Wnt5a* in the test sample of the tumor to a *Wnt5a* gene expression profile from a cluster of pair-matched tumor samples, wherein increased *Wnt5a* expression in the test sample relative to a tumor in the gene expression profile having non-detectable or no vasculogenic mimicry indicates the tumor of the test sample is aggressive.

33. (Previously Presented) The method of claim 28, wherein analyzing comprises comparing expression of *Wnt5a* in the test sample of the tumor to a *Wnt5a* gene expression profile from a cluster of pair-matched tumor samples, wherein increased *Wnt5a* expression in the test sample relative to a tumor in the gene expression profile having a cell motility of less than about 110.7  $\mu\text{m}$  per day indicates the tumor of the test sample is aggressive.